



G3310AA LC/MSD Trap Security Pack Quick Start Guide

A guide to the 21 CFR Part 11 compliance add-on for the LC/MSD Trap software

Use this reference to install and get started with the Agilent LC/MSD Trap Security Pack software.

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What are the 21 CFR Part 11 compliance features of the LC/MSD Trap Security Pack software?

The 1997 Food and Drug Administration (FDA) ruling 21 CFR Part 11 defined criteria for FDA acceptance of electronic records and electronic signatures. The LC/MSD Trap Security Pack software includes the following features to address these requirements:

- Limited system access and authority checks
- Audit trails
- Electronic signatures
- Results history

This *Quick Start Guide* introduces you to these capabilities. See the online help for more information on each of these features.



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Concepts

Key requirements of 21 CFR Part 11 include limited system access and authority checks. The LC/MSD Trap Security Pack software helps laboratories to meet these requirements via a UserManagement Administration Tool, which enables a system administrator to set up users, passwords, and rights. In the case where there is only one LC/MSD Trap PC in the laboratory, it is most efficient to install the security pack software on that PC. Then the single PC acts as both client and server. In the case where there are multiple LC/MSD Trap PCs, it is best to install the software on a central server, as shown in [Figure 1](#). The users, passwords and rights that are set up on the central server then apply to all the clients. Administrators invoke a UserManagement Configuration dialog box on the clients to establish the server as the control point for UserManagement. (See [Figure 2](#).) [Table 1](#) lists the software packages applicable to servers and clients.

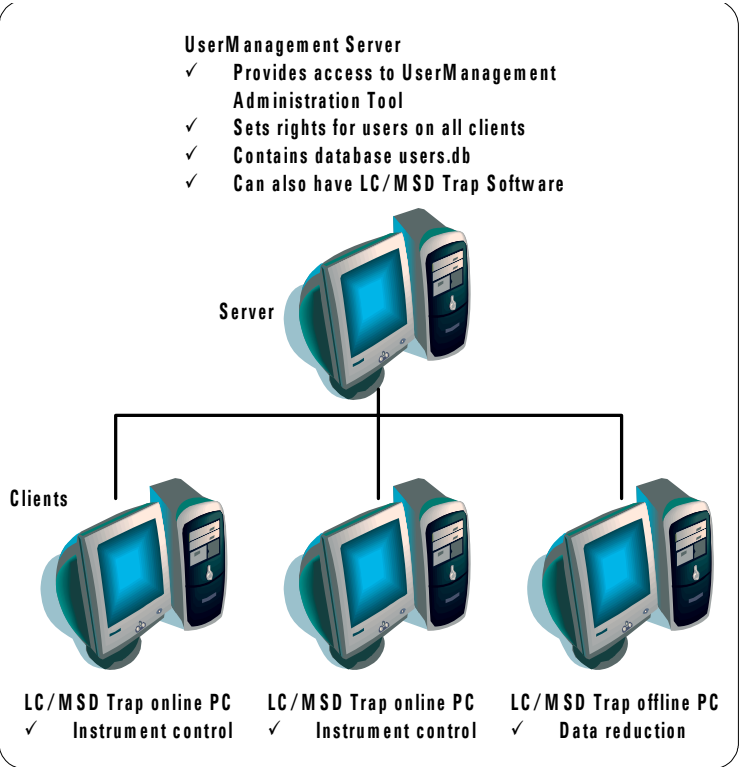


Figure 1 UserManagement software installed on central server

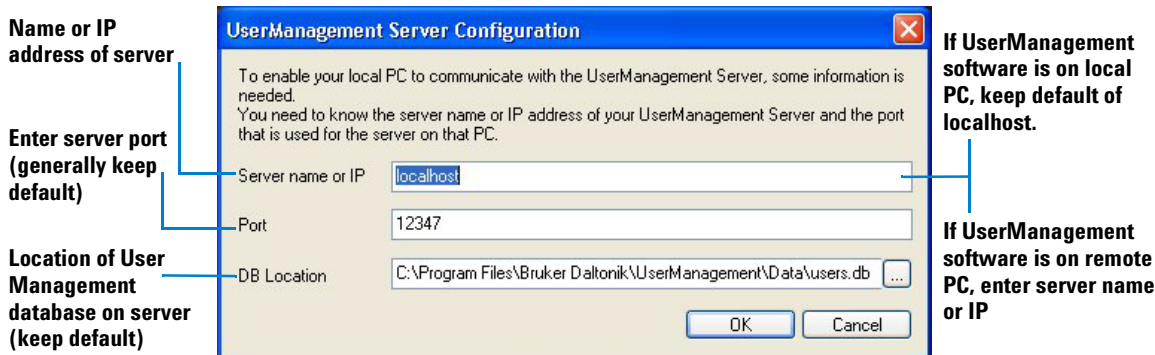


Figure 2 Client configuration of connection to UserManagement Server

Other requirements of 21 CFR Part 11 include audit trails and results history. These are accomplished at the client level once the compliance license number is installed in DataAnalysis on the LC/MSD Trap PC. Electronic signatures are implemented on the client PCs, but the rights to electronically sign are governed by the UserManagement Administration tool on the server.

Table 1 Software to install on UserManagement Server and LC/MSD Trap clients

	Server	Client
Purpose of PC	Central location for managing LC/MSD Trap users and rights	Offline or online LC/MSD Trap installation
Minimum software	UserManagement Administration Tool (G1330AA Security Pack Software)	LC/MSD Trap software
Optional software	LC/MSD Trap software	

Installation and Getting Started Roadmap

This diagram shows the steps for administrators and other users to get started with the LC/MSD Trap Security Pack software. This guide and the online help explain these steps.

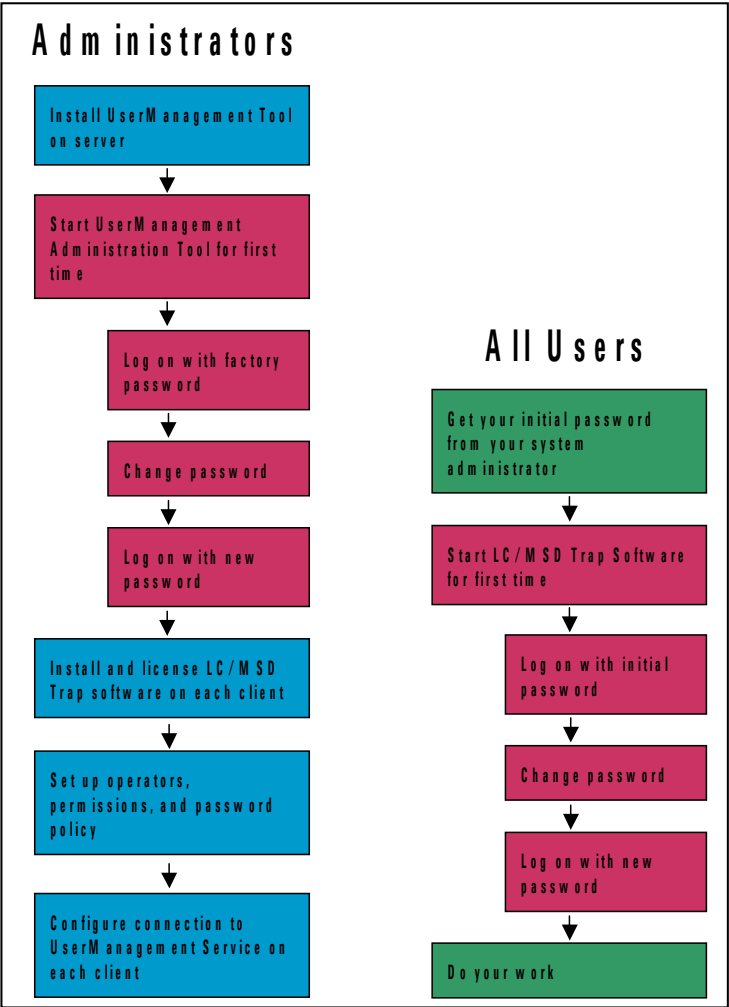


Figure 3 Getting started workflow diagram

Server Installation

The LC/MSD Security Pack consists of two components: a server component and a client component. The server component can be installed on an LC/MSD Trap Control PC or any other PC.

Step 1. Start the installation

- 1 Decide whether you want to install the server component on a centralized server PC for the entire laboratory, or on a local PC.
 - If you have multiple LC/MSD Traps in the laboratory, install the software on a central server.
 - If you have only a single LC/MSD Trap, install the software on the local instrument control PC.

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- 2 If the server PC is or will also be an LC/MSD Trap Control PC or an offline data processing PC, start the installation according to the instructions in the *Agilent 1100 LC/MSD Trap System Installation Guide* as if you are upgrading the PC.

Continue at the next Step only when instructed to by the *Installation Guide*.

If your LC/MSD Trap Control PC already has a previous release of the LC/MSD Trap Software installed, make sure to you do “Step 2. Upgrade from Windows NT4 or to a compliant system” in the *Installation Guide* to restore the entire PC using the Emergency Recovery CD kit.

If you want to set up a data processing only PC in a compliant mode, use a dedicated PC, remove all previously installed LC/MSD Trap software, and separate data previously acquired in a non-compliant mode from data acquired in compliant mode on the LC/MSD Trap Control PC. You can purchase another LC/MSD Trap Control PC for this purpose, and benefit from the included Emergency Recovery CD kit.

Step 2. Install the UserManagement software

- 1 Insert the G1330AA LC/MSD Trap Security Pack Software CD into the CD drive.
- 2 Display the files on the CD.
- 3 Double-click the folder **Install**.
- 4 Double-click **AgilentServerSetup.exe** to run the server setup program.
- 5 In the welcome screen, click **Next >**.
- 6 Carefully read the license agreement.
- 7 If you accept the terms, click **I accept the terms of the license agreement**.
- 8 Click **Next >** to continue.
- 9 Select a **Complete** as the **Setup Type**.

Both the Server Component and Administration Tool are installed on the server PC.

- 10 Click **Next >** to continue.
- 11 Click **Install** to begin the installation.
- 12 If you are prompted to enter the license for the LC-MSD Trap UserManagement software, do so. You can find the license on the software certificate provided in the G1330AA Security Pack Software kit.
- 13 When you see the screen to **Enter LC-MSD Trap UserManagement Server Name and Port**, retain the defaults and click **OK**. The default port was specifically chosen because it is a free port on most PCs.
- 14 Click **Finish**.

Step 3. Start the UserManagement Administration Tool for the first time

- 1 Log onto the UserManagement Administration Tool:
 - a From the **Start** menu on the UserManagement server, select **All Programs > LCMSD Trap > Administration > UserManagement Administration Tool**.
 - b In the logon dialog box, for **Operator** enter **Administrator** and for **Password** enter **administrator**. Note that passwords are case-sensitive.
 - c Click **Log On**.
- 2 When you see the message that instructs you to change your password, click **OK**.
- 3 Fill in the **Change Password** form as described on [“To change your password”](#) on page 22.
- 4 Log on again with your new password.
- 5 If you see the Create New Operator dialog box (see [Figure 4](#) on page 9, click **Cancel** to go to the UserManagement Administration Tool main window (see [Figure 5](#) on page 9).
- 6 Click **Close** to close the UserManagement Administration Tool, Click **Yes** when asked to confirm.

Step 4. Finish the LC/MSD Trap Control PC or offline data processing PC installation

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- If the UserManagement software is being installed on an LC/MSD Trap Control PC or an offline data processing PC, return to “Step 9. Install the LC/MSD Trap Software” in the *Installation Guide* to complete the system installation.
- Continue at the next Step when you are instructed to do so by the *Installation Guide*.

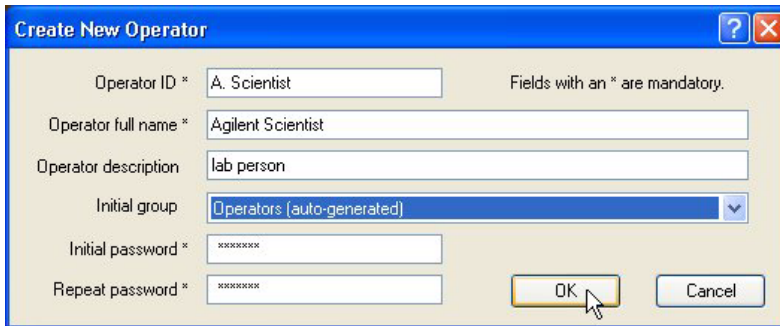
Step 5. Use the UserManagement Administration Tool to set up operators, rights and password policies

- 1 Log onto the UserManagement Administration Tool:
 - a From the **Start** menu on the UserManagement server, select **All Programs > LCMSD Trap > Administration > UserManagement Administration Tool**.
 - b In the logon dialog box, for **Operator** type Administrator and for **Password** type the password that you set in “[Step 3. Start the UserManagement Administration Tool for the first time](#)” on page 7. Note that passwords are case-sensitive.
 - c Click **Log On**.
- 2 From the **Operators** tab, click **Create New Operator**.
- 3 Verify that you see the form shown in [Figure 4](#).
- 4 Fill in the form to set up the first operator.
 - As a minimum, you need to complete the boxes that are marked with an asterisk.
 - For **Group**, select one of the preconfigured groups, or keep the default setting of **None**. You will have a chance to change the group later. The group assignment is what determines the operator’s rights.
- 5 Click **OK**. You will see a message that states that the operator was created successfully.
- 6 When you see the **UserManagement Administration Tool** dialog box, use the information shown in [Figure 5](#), along with the online help, to proceed with additional **UserManagement Administration Tool** tasks. These include:
 - Customize the password policy and timeout for your laboratory.
 - Modify **Rights**, **Group Assignments** and **Groups** as desired.
 - Add more **Operators** as desired.
- 7 When you are done, click **OK** to close the form.
- 8 Return to “Step 13. Create a backup image of Programs and Archive partitions” in the *Installation Guide* to make a custom backup image of your system.

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NOTE

If you have ChemStation installed, but do not see it in the **Application** list under the **Rights** tab, then close the UserManagement Administration Tool, launch ChemStation, and open the UserManagement Administration Tool again.



Create New Operator

Operator ID * A. Scientist Fields with an * are mandatory.

Operator full name * Agilent Scientist

Operator description lab person

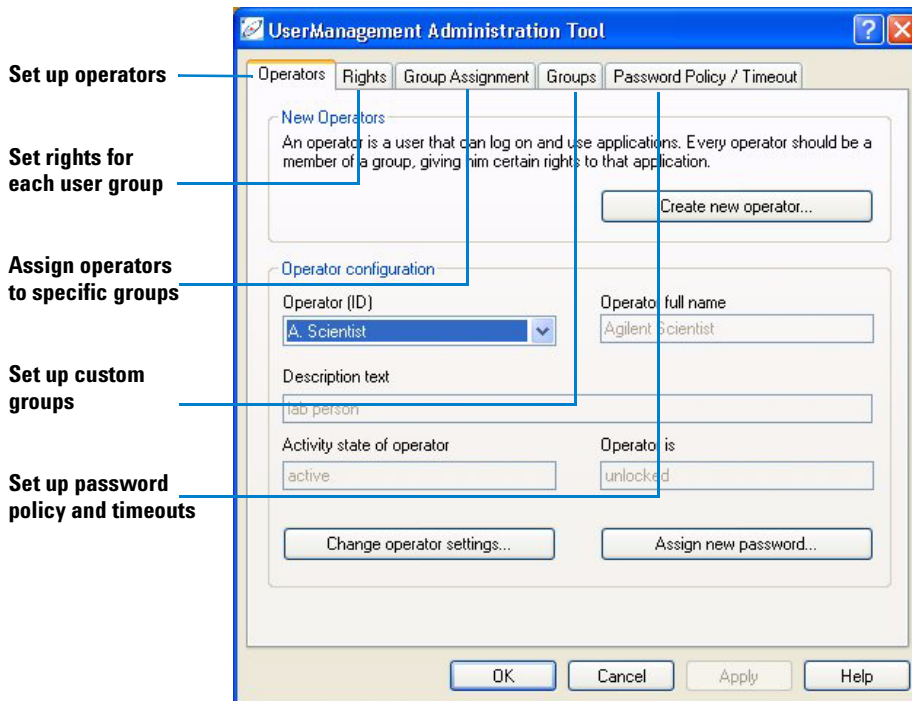
Initial group Operators (auto-generated) ▼

Initial password * xxxxxxxx

Repeat password * xxxxxxxx

OK Cancel

Figure 4 Setting up an operator



UserManagement Administration Tool

Operators Rights Group Assignment Groups Password Policy / Timeout

Set up operators — New Operators

Set rights for each user group — An operator is a user that can log on and use applications. Every operator should be a member of a group, giving him certain rights to that application.

Assign operators to specific groups — Create new operator...

Set up custom groups — Operator configuration

Operator (ID) A. Scientist

Operator full name Agilent Scientist

Description text lab person

Activity state of operator active

Operator is unlocked

Change operator settings... Assign new password...

OK Cancel Apply Help

Figure 5 UserManagement Administration Tool

Client Installation

If the Client PC also functions as the UserManagement Server PC, and has been installed according to “[Step 2. Install the UserManagement software](#)” on page 6, then it is already properly configured, and you have nothing more to do.

If you have configured the UserManagement Server on a central PC, then follow the steps in this section for all the Client PCs. Client PCs can be LC/MSD Trap Control PCs or off-line (data-processing only) PCs.

Step 1. Install and license the LC/MSD Trap software on each client

- 1 If the LC/MSD Trap 5.2 Software is already installed on your system, according to the instructions in the *Installation Guide*, then:
 - a Click **Start > Programs > LCMSD Trap > Administration > License Manager**.
 - b Enter the license key for the LC/MSD Trap Security Pack software.
 - c Click **Add**.
 - d Finish the license installation as instructed.
- 2 If the LC/MSD Trap 5.2 Software is *not* installed on your system:
 - a Follow the instructions in the *Installation Guide* to start a regular installation or upgrade, not one for a compliant system.
 - b When you are prompted to enter license numbers, make sure you enter the LC/MSD Trap Security Pack license number.
 - c Finish the installation or upgrade as instructed.

NOTE

If the User database is located on a central UserManagement Server, but the Administrator wishes to administer the user database from a client PC as well, please install the entire UserManagement software with the Complete option on the client PC, just as for the central server (see “[Step 2. Install the UserManagement software](#)” on page 6).

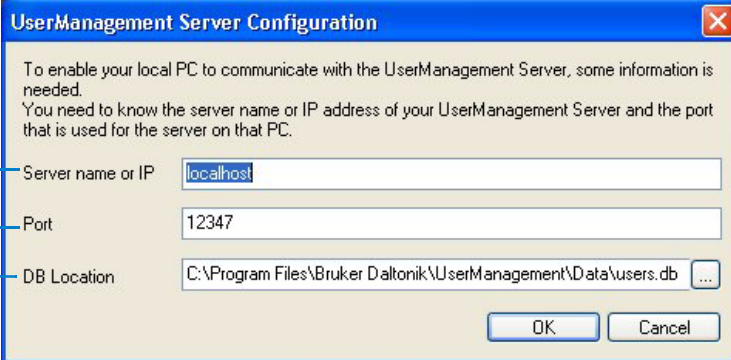
Step 2. Configure the UserManagement Server connection on each client

- 1 Click **Start > Programs > LCMSD Trap > Administration > UserManagement Configuration**.
- 2 In the UserManagement Server Configuration dialog box:
 - a Enter the server name or IP address in the **Server Name or IP** text box.
 - b Keep defaults for **Port** and **DB Location** unless the User database is located in a different path on the UserManagement Server.

Name or IP
address of server

Server port
(usually keep
default)

Location of User
Management
database on server
(keep default)

The image shows a Windows-style dialog box titled "UserManagement Server Configuration". It contains a text area with instructions: "To enable your local PC to communicate with the UserManagement Server, some information is needed. You need to know the server name or IP address of your UserManagement Server and the port that is used for the server on that PC." Below the text are three input fields: "Server name or IP" with the value "localhost", "Port" with the value "12347", and "DB Location" with the value "C:\Program Files\Bruker Daltonik\UserManagement\Data\users.db" and a browse button "...". At the bottom right are "OK" and "Cancel" buttons. Blue lines from the labels on the left point to the corresponding fields in the dialog box.

UserManagement Server Configuration

To enable your local PC to communicate with the UserManagement Server, some information is needed.
You need to know the server name or IP address of your UserManagement Server and the port that is used for the server on that PC.

Server name or IP

Port

DB Location ...

OK Cancel

Figure 6 Configuring the client connection to the UserManagement Server

To remove the LC/MSD Trap Security Pack

- 1 Run **agilentserversetup.exe** on the software CD.
- 2 Select **Remove** from the setup panel.

CAUTION

Do not to use the **Windows Add/Remove Programs** function to remove the software. You might delete one or more Windows system files, which may interfere with Windows operation.

Quick Tutorial for System Administrators

This section assumes that installation is complete. If not, start with “[Server Installation](#)” on page 5.

To access the UserManagement Administration Tool

- 1 From the **Start** menu on the UserManagement server, select **All Programs > LCMSD Trap > Administration > UserManagement Administration Tool**.
- 2 In the logon dialog box, for **Operator** enter **Administrator** and for **Password** enter the password for Administrator. Note that passwords are case-sensitive.
- 3 Click **Log On**.
- 4 You will see the **UserManagement Administration Tool** dialog box, as shown in [Figure 5](#). Use this to set up operators, rights, and passwords.

To sign or delete an electronic record

When you sign or delete an electronic record, you accept or delete the processed results. The original data file is not affected.

When you sign or delete an electronic record in DataAnalysis, you accept or delete a single set of processed results for a single data file. When you sign or delete an electronic record in QuantAnalysis, you accept or delete a single set of processed results, for all data files included in the quantitation set.

An electronic record may be signed more than once, by more than one person.

To use the Result History menu item in DataAnalysis

- 1 From **DataAnalysis**, load a data file if you have not already done so. This example uses the **SulfMS01.d** data file from the **Example Data** directory on the G1330AA Security Pack Software CD.
- 2 Select **File > Result History**.

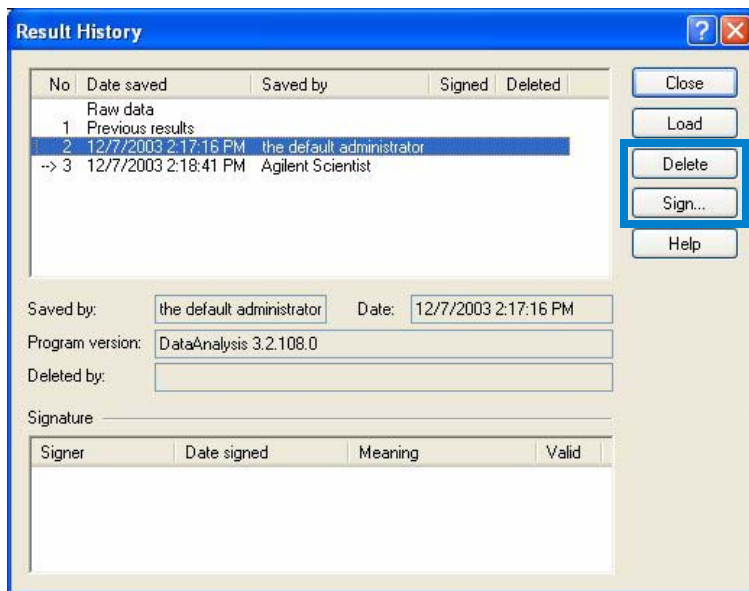


Figure 7 Result History in DataAnalysis

3 To sign the record:

- a** Click the item in the **Result History** that you wish to sign. (See [Figure 7.](#))
- a** Click **Sign....**
- b** Sign the electronic record.
 - Enter your operator name, password, and the meaning you intend to convey with your signature.
 - See [Figure 8](#) as an example.
 - Remember that passwords are case-sensitive.
- c** In the **Sign Electronic Record** dialog box, click **Sign**.
- d** Check that your signature is reflected in the data record. You should see **yes** in the **Signed** column of the **Result History**.

- 4 To delete the record:
- Click the item in the **Result History** that you wish to delete. (See [Figure 7](#).)
 - Click **Delete**.
 - When you see the message that requests you to confirm deletion, click **Yes**.
 - Check that your deletion is reflected in the data record. You should see **yes** in the **Deleted** column of the **Result History**.

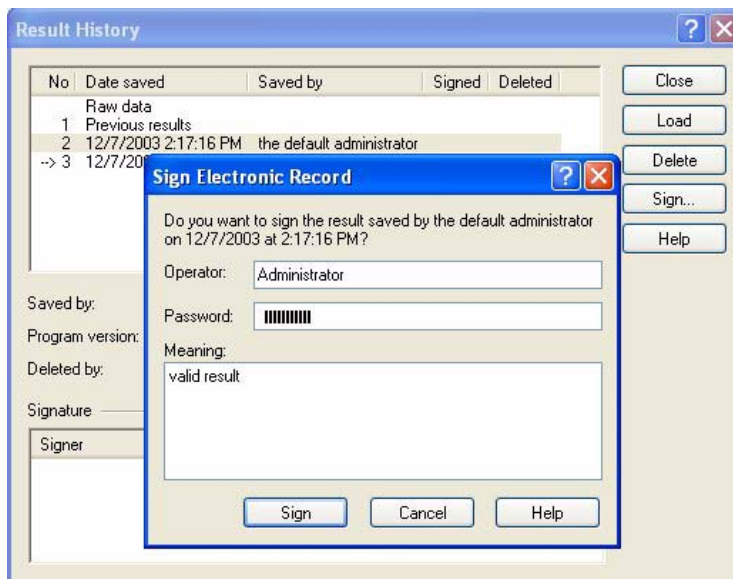


Figure 8 Signing an electronic record in the **Result History**

To use the Sign Electronic Record menu item in DataAnalysis

- 1 From **DataAnalysis**, load a data file if you have not already done so. This example uses the **SulfMS01.d** data file from the **Example Data** directory on the G1330AA Security Pack Software CD.
- 2 If you wish to load a specific result within a data file:
 - a Select **File > Open**.
 - b Click the file name.
 - c At the bottom of the **File Open** dialog box, click the **Result** arrow and select the specific result you wish to open. See [Figure 9](#). Unlike the **Result History**, deleted results do not appear in this list.
 - d Click **Open**.

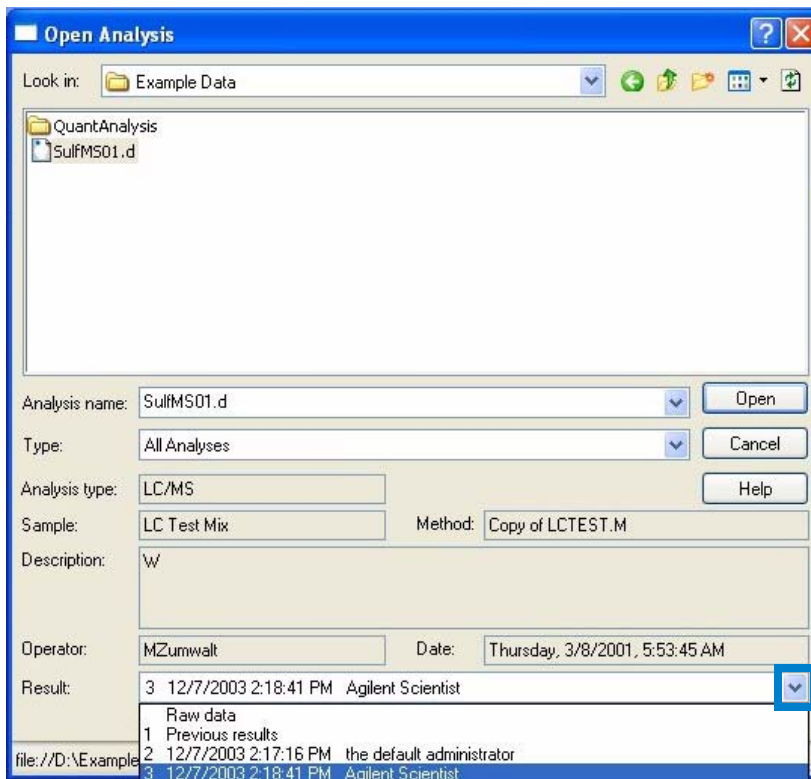


Figure 9 Opening a specific result associated with a data file

- 3 Select **File > Sign Electronic Record**.
- 4 Check to see whether the electronic record indicated at the top of the dialog box (as shown in [Figure 10](#)) is the one you wish to sign. The record indicated will be one of the following:
 - The last record saved, i.e., the result of the most recent action on the data
 - The last result opened with **File > Open**
 - The last record selected and loaded in the **Result History**



Figure 10 Signing an electronic record

- 5 To sign the electronic record, enter your operator name and password. Remember that passwords are case-sensitive.
- 6 Enter a **Meaning** to describe what you intend to convey with your signature.
- 7 Click **Sign**.

To use the History... button in QuantAnalysis

- 1 In **QuantAnalysis**, load a quantitation batch file if you have not already done so. This example uses the **Seqtable.btc** batch file from the **Example Data\QuantAnalysis** directory on the G1330AA Security Pack Software CD.
- 2 From the **Work Table View**, click the **History...** button, as shown in [Figure 11](#).
- 3 To sign the record, see [step 3](#) on [page 13](#).
- 4 To delete the record, see [step 4](#) on [page 14](#).

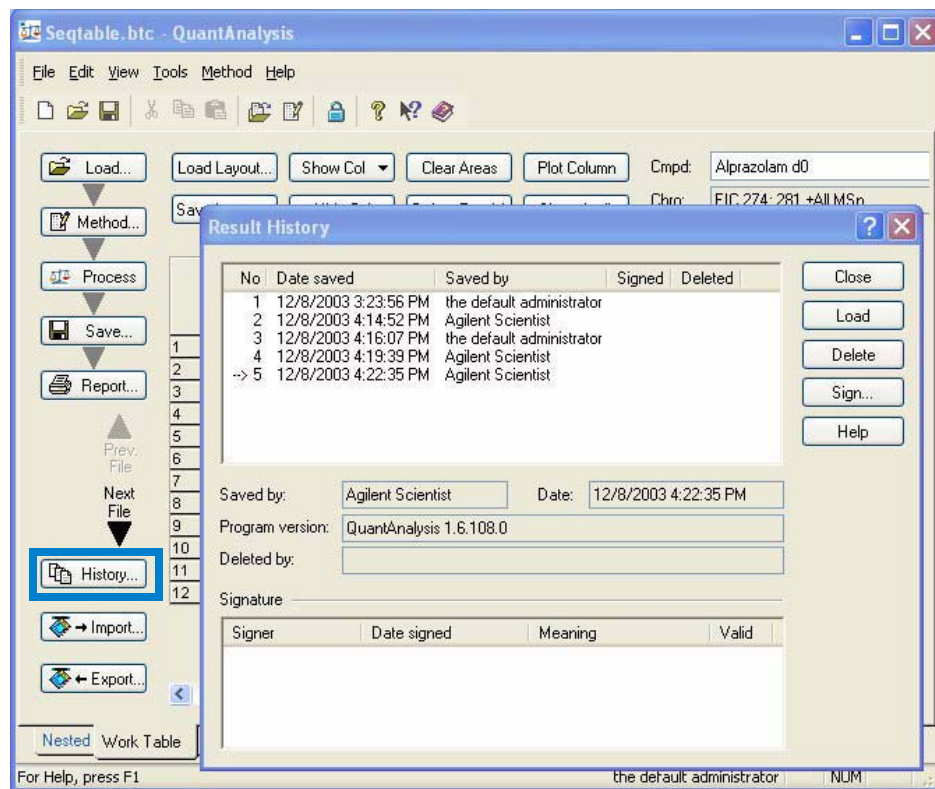


Figure 11 Result History in QuantAnalysis

To recover from administrator's incorrect password entry

If as Administrator you type your password wrong too many times (as set by **Maximum wrong logons** in the **Password Policy**), the software will lock you out. To regain access to the software:

- 1 Stop the **BDalUserManagement Service**. To do this, see [Figure 12](#) and follow these instructions:
 - a Right-click **My Computer** and select **Manage**.
 - b Click **Services and Applications** to expand it.
 - c Click **Services** to expand it.
 - d Right-click **BDal UserManagement Service** and select **Stop**.
- 2 Do one of the following:
 - If you do not remember your password, delete the user database (**X:\Program Files\Bruker Daltonik\UserManagement\Data\users.db**), where **X** is the drive where you installed the LC/MSD Trap software. Then do steps 3 - 5 below.
 - If you do remember your password, but just accidentally miss-typed it, do step 3 only.
- 3 Restart **BDalUserManagement Service**. (See [Figure 12](#).)
 - a Right-click **My Computer** and select **Manage**.
 - b Click **Services and Applications** to expand it.
 - c Click **Services** to expand it.
 - d Right-click **BDal UserManagement Service** and select **Start**.
 - e Close **Computer Management**.
- 4 Start the UserManagement Administration Tool, as described in [“Step 3. Start the UserManagement Administration Tool for the first time”](#) on page 7.
- 5 Start over to set up users, passwords, etc., as described in [“Step 5. Use the UserManagement Administration Tool to set up operators, rights and password policies”](#) on page 8.

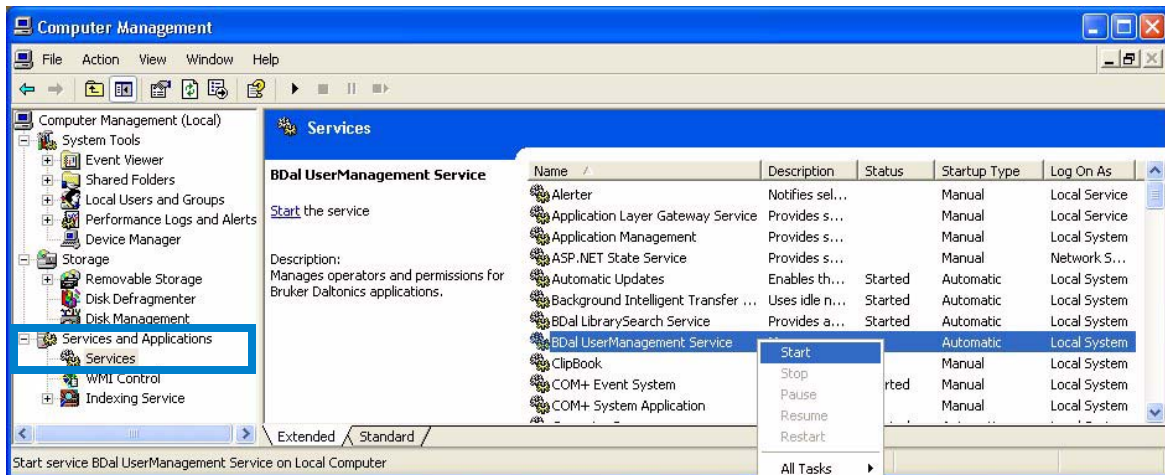


Figure 12 To start or stop the UserManagement Service

To unlock an operator who has entered his password incorrectly

If an operator types his password wrong too many times (as set by **Maximum wrong logons** in the **Password Policy**), the software will lock him out.

If the operator is the system administrator, see [“To recover from administrator's incorrect password entry”](#) on page 18. If the operator is another user, then follow these steps to allow him to regain access to the software:

- 1 Start the **UserManagement Administration Tool**, as described in [“To access the UserManagement Administration Tool”](#) on page 12.
- 2 In the **Operators** tab, select the **Operator ID** of the person who has been locked out.
- 3 Click **Change Operator Settings....**
- 4 Clear the **Operator is locked** check box.
- 5 Click **OK**.

To uninstall the UserManagement software

- 1 Remove the LC/MSD Trap Security Pack license:

Note that you must have Administrator privileges to remove the license.

- a Click **Start > Programs > LCMSD Trap > Administration > License Manager**.
- b Select **LC/MSD Trap Security Pack x.x**, where *x.x* represents the version number, then click **Delete**.
- c Click **Yes** when you are asked, **Do you really want to delete the selected license key?**
- d Enter your password when prompted.
- e Click **Close**.

CAUTION

You must uninstall the compliance license first before uninstalling the UserManagement Server software. Otherwise the system can get into an unusable status, and you will not be able to launch the LC/MSD Trap software.

- 2 Click **Start > Settings > Control Panel** (Windows 2000) or click **Control Panel** (Windows XP).
- 3 Double-click **Add/Remove Programs** (Windows 2000) or **Add or Remove Programs** (Windows XP).
- 4 Click **LC-MSD Trap UserManagement Server**.
- 5 Click the **Remove** button.

Quick Tutorial for Operators

To log on

- 1 Do one of the following:
 - Start one of the LC/MSD Trap applications.
 - If the application has already been started by another operator, select **Help > Operator...**
- 2 Check that you see a logon dialog box similar to the one shown in [Figure 13](#).
- 3 Enter your user name and password.
 - Remember that the password is case-sensitive.
 - See your system administrator if you do not know your password.
- 4 Click **Log On**.
- 5 Note that the first time you log on, you will be prompted to change your password. Fill in the form as shown in [Figure 14](#).

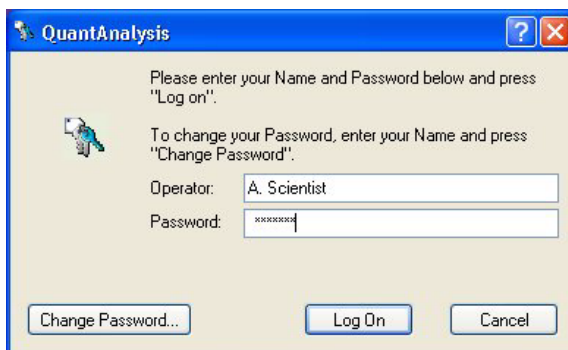


Figure 13 Logging on

To change your password

- 1 In the login dialog box (Figure 13 or similar), click **Change Password....**
- 2 Fill out the information shown in Figure 14.
- 3 Click **OK**.

A screenshot of a 'Change Password' dialog box. The dialog has a blue title bar with a question mark icon and a close button. The main area is light beige. It contains the text 'Enter your old Password. Then enter your new Password twice.' Below this are four input fields: 'Operator' with the text 'A. Scientist', 'Old Password' with 'xxxxxxx', 'New Password' with 'xxxxxxx', and 'Confirm new Password' with 'xxxxxxx'. At the bottom are 'OK' and 'Cancel' buttons. A mouse cursor is pointing at the 'OK' button.

Figure 14 Changing passwords

To view audit trail information for QuantAnalysis

Click the **Show Audit** button in the QuantAnalysis window. See Figure 15. The example shows the **Seqtable.btc** batch file from the **Example Data\QuantAnalysis** directory on the G1330AA Security Pack Software CD.

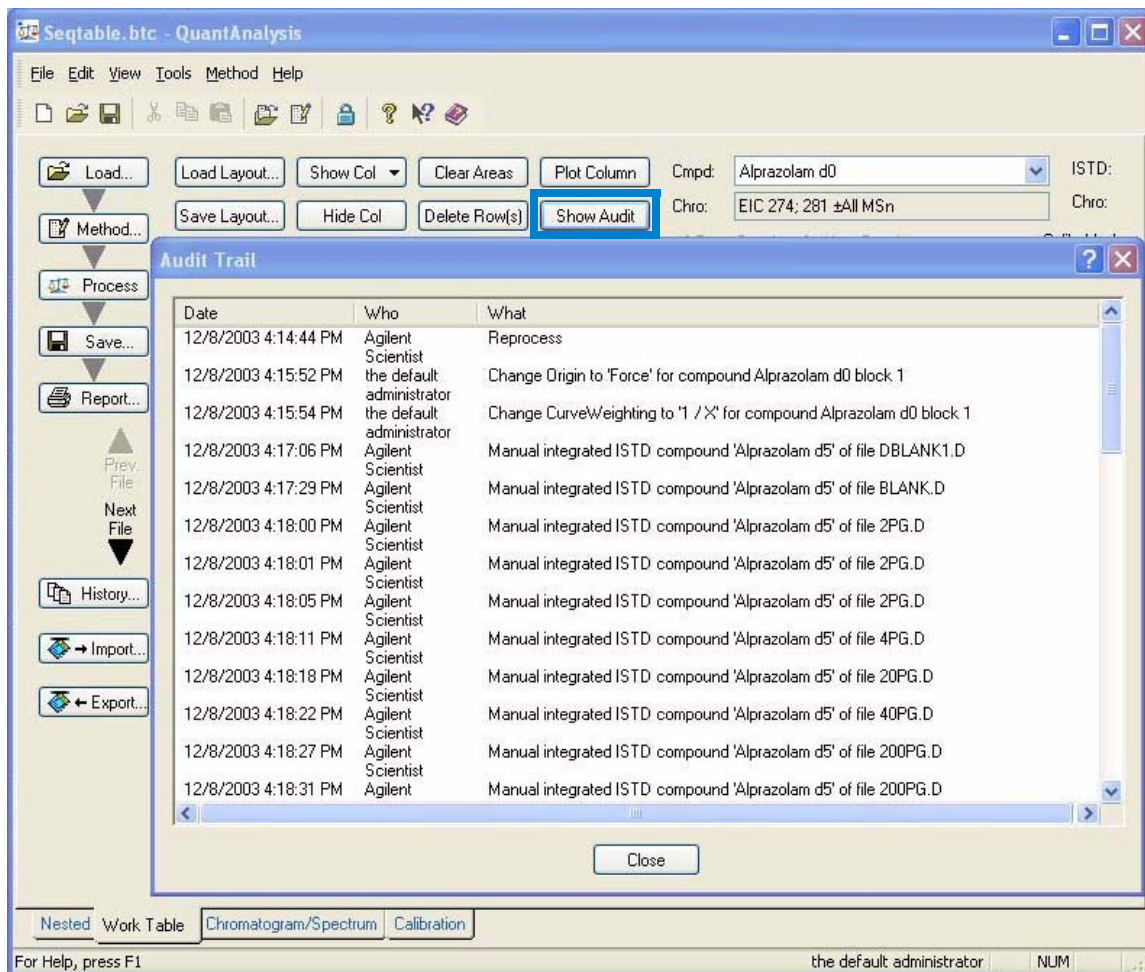


Figure 15 Audit trail in QuantAnalysis

To view other audit trail information

- 1 From DataAnalysis, select **File > Open** and open a data file. This example uses the **SulfMS01.d** data file from the **Example Data** directory on the G1330AA Security Pack Software CD.
- 2 Select **File > Audit Trail** to view the audit trail for that data file.
- 3 Check that you see the **AuditTrailViewer**, as shown in [Figure 16](#).
- 4 Highlight an entry in the table to view details for that entry (also shown in [Figure 16](#)).
- 5 To view audit trail information for any other analysis or method:
 - a Click the **Electronic Record** button at the top of the dialog box.
 - b Navigate to the analysis or method and select it.
 - c Confirm that you see the audit trail.
- 6 To view the UserManagement Audit Trail, click the **User Management** button.
- 7 To view the System Audit Trail (on-line systems only), click the **System** button.

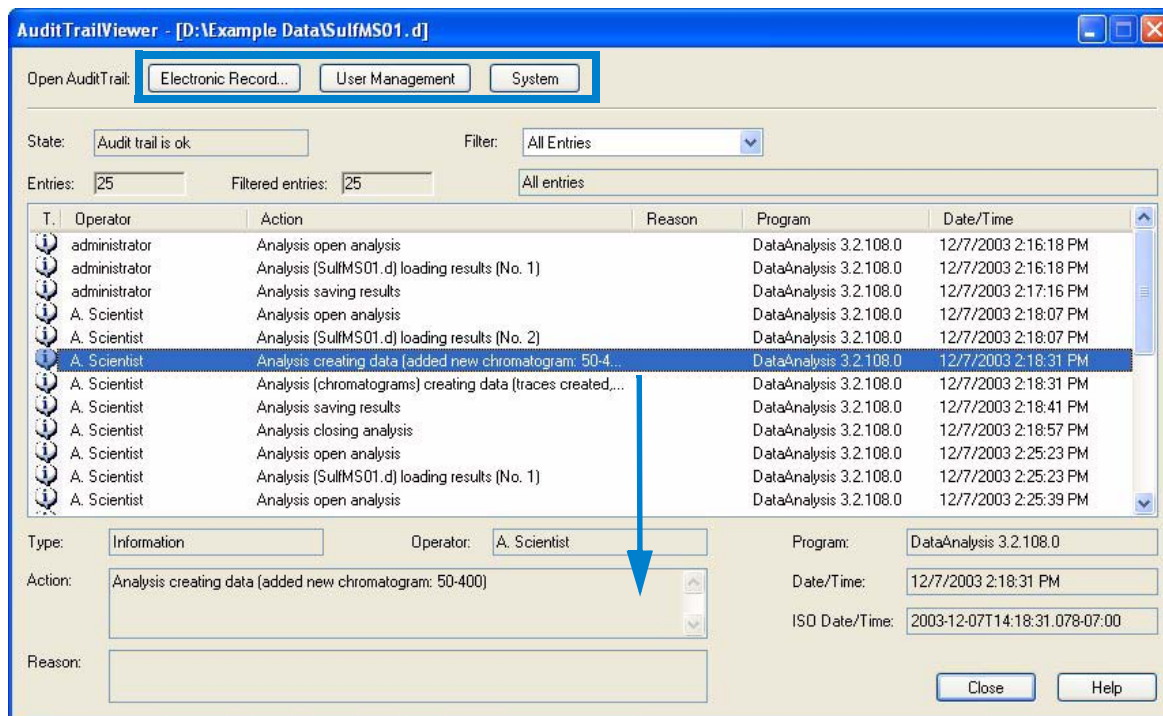


Figure 16 AuditTrailViewer opened in DataAnalysis

NOTE

You can also open the **AuditTrailViewer** from the **Start** menu. Click **Start > All Programs > LCMSD Trap > Administration > AuditTrailViewer**.

Description of audit trail information

The following table shows the types and locations of audit trail information for the LC/MSD Trap system. (This does not include the QuantAnalysis audit trail discussed on [page 22](#).) The first four audit trails are implemented within the LC/MSD Trap software, and are accessed as described above. The the last four are implemented within the ChemStation software.

LC/MSD Trap and ChemStation audit trail files

Log	Contents	Location
Data log	Operations on the data file, data processing steps	<Data Folder>\AuditTrail.log
Method log	Changes to the method file	<Method Folder>\AuditTrail.log
User Management log	Valid and failed user logons	C:\BDALSystemData\UserAuditTrail\#\AuditTrail.log, where # is a folder named with a long alphanumeric string
System log	Logons, software versions, method loads, license number changes	C:\BDALSystemData\SystemAuditTrail\#\AuditTrail.log, where # is a folder named with a long alphanumeric string
Instrument log	Application-level logging	C:\HPCHEM\1\TEMP\Instr<Instrument #>.log
Sequence log	Sequence-level logging	D:\DATA\<Sequence Folder>\<something>.log
Run log	Run-level logging	D:\DATA\<Data Folder>\Run.log
Module log	State of modules over time	C:\HPCHEM\1\TEMP\<set of files>

To lock and unlock applications

- 1 From any LC/MSD Trap application, select **Help > Lock All Applications**.
- 2 To unlock, enter your password.
 - Administrators can unlock applications that have been locked by others.

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In this Book

The *Quick Start Guide* introduces you to the LC/MSD Trap Security Pack features that are used for 21 CFR Part 11 compliance.

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